

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Canceled)

2. (Currently Amended) An image forming apparatus according to claim [[1]] 3, wherein the pressing means is disposed on one side of the drum-holding frame so as to press the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum.

3. (Currently Amended) An image forming apparatus ~~according to claim 1,~~ comprising:
a pair of stationary side walls arranged in an image forming apparatus body; and
a plurality of photosensitive drum units supported between the stationary side walls,
wherein each of the photosensitive drum units comprises:
a drum-holding frame for holding a photosensitive drum,
an exposure means-holding frame for holding an exposure means, the exposure means-
holding frame being supported on the drum-holding frame so as to move in an axial direction of
the photosensitive drum, relative to the drum-holding frame, and
a pressing means for pressing the exposure means-holding frame from one side toward
the other side in the axial direction of the photosensitive drum, wherein the pressing means comes pushed in contact with one stationary side wall, and is pushed to press-contact part of the other side of the exposure means-holding frame to the other stationary side wall, ~~so that the~~
~~causing both sides of the exposure means-holding frames are~~ frame to be aligned to with each other[[.]] at a predetermined ~~positions~~ position in an axial direction, with the other stationary side wall as a reference.

4. (Currently Amended) An image forming apparatus ~~according to claim 1,~~ comprising:
a pair of stationary side walls arranged in an image forming apparatus body; and
a plurality of photosensitive drum units supported between the stationary side walls,

wherein each of the photosensitive drum units comprises:

a drum-holding frame for holding a photosensitive drum,

an exposure means-holding frame for holding an exposure means, the exposure means-holding frame being supported on the drum-holding frame so as to move in an axial direction of the photosensitive drum, relative to the drum-holding frame, wherein the exposure means-holding frame [[is]] being supported so as to move in the axial direction relative to the drum-holding frame by fitting shafts or fitting holes being disposed on both side walls that define both sides of the exposure means-holding frame to the fitting holes or the shafts disposed on both side walls of the drum-holding frame, and axes of the shafts or the fitting holes disposed on both side walls of the exposure means-holding frame and the axes of the fitting holes or the shafts disposed on both side walls of the drum-holding frame [[are]] being arranged on a common imaginary axis line in parallel with the axis of the photosensitive drum, which is on a common imaginary axis line on the peripheral surface where an image is focused by the exposure means, of the photosensitive drum, and

a pressing means for pressing the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum.

5. (Currently Amended) An image forming apparatus according to claim 1, wherein comprising:

a pair of stationary side walls arranged in an image forming apparatus body; and

a plurality of photosensitive drum units supported between the stationary side walls,

wherein each of the photosensitive drum units comprises:

a drum-holding frame for holding a photosensitive drum,

an exposure means-holding frame for holding an exposure means, the exposure means-holding frame being supported on the drum-holding frame so as to move in an axial direction of the photosensitive drum, relative to the drum-holding frame,

a pressing means for pressing the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum,

first positioning projections, having axes common to the axis of the photosensitive drum, [[are]] disposed on both side walls of the drum-holding frame,

second positioning projections in parallel with the axis of the photosensitive drum, [[are]] disposed on both side walls of the exposure means-holding frame, and

a first positioning groove and a second positioning groove for positioning the first positioning projection and the second positioning projection that are inserted therein ~~[[are]]~~ formed in the stationary side walls.

6. (Currently Amended) An image forming apparatus ~~according to claim 5,~~
comprising:

a pair of stationary side walls arranged in an image forming apparatus body; and
a plurality of photosensitive drum units supported between the stationary side walls,
wherein each of the photosensitive drum units comprises:
a drum-holding frame for holding a photosensitive drum,
an exposure means-holding frame for holding an exposure means, the exposure means-
holding frame being supported on the drum-holding frame so as to move in an axial direction of
the photosensitive drum, relative to the drum-holding frame,
a pressing means for pressing the exposure means-holding frame from one side toward
the other side in the axial direction of the photosensitive drum,
first positioning projections, having axes common to the axis of the photosensitive drum,
disposed on both side walls of the drum-holding frame wherein the first positioning projections
disposed on both side walls of the drum-holding frame are being constituted by the shaft of the
photosensitive drum,
second positioning projections, in parallel with the axis of the photosensitive drum,
disposed on both side walls of the exposure means-holding frame, and
a first positioning groove and a second positioning groove for positioning the first
positioning projection and the second positioning projection inserted therein, formed in the
stationary side walls.

7. (Currently Amended) An image forming apparatus ~~according to claim 5,~~
comprising:

a pair of stationary side walls arranged in an image forming apparatus body; and
a plurality of photosensitive drum units supported between the stationary side walls,
wherein each of the photosensitive drum units comprises:
a drum-holding frame for holding a photosensitive drum,

an exposure means-holding frame for holding an exposure means, the exposure means-holding frame being supported on the drum-holding frame so as to move in an axial direction of the photosensitive drum, relative to the drum-holding frame,

a pressing means for pressing the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum,

first positioning projections, having axes common to the axis of the photosensitive drum, disposed on both side walls of the drum-holding frame,

second positioning projections, in parallel with the axis of the photosensitive drum disposed on both side walls of the exposure means-holding frame, wherein the second positioning projection disposed on the other side wall of the exposure means-holding frame is constituted by a positioning/pushing shaft, positioning surface walls are formed substantially integrally with the stationary side walls on the outer sides of the regions of the stationary side walls where the second positioning grooves are formed, and as the first positioning projections are inserted in [[the]] first positioning grooves and as the second positioning projections are inserted in [[the]] second positioning grooves thereby enabling the photosensitive drum units to be supported at predetermined positions between the stationary side walls, the pressing means is pushed upon coming in contact with the positioning wall surface of the one stationary side wall, and the front end surface of the positioning/pushing shaft of the exposure means-holding frame is pushed onto the positioning wall surface of the other stationary side wall due to the pressing means, and

the first positioning groove and the second positioning groove for positioning the first positioning projections and the second positioning projections inserted therein are formed in the stationary side walls.

8. (Currently Amended) An image forming apparatus according to claim 1,
comprising:

a pair of stationary side walls arranged in an image forming apparatus body; and
a plurality of photosensitive drum units supported between the stationary side walls,
wherein each of the photosensitive drum units comprises:
a drum-holding frame for holding a photosensitive drum,
an exposure means-holding frame for holding an exposure means, the exposure means-holding frame being supported on the drum-holding frame so as to move in an axial direction of

the photosensitive drum, relative to the drum-holding frame, wherein the exposure means-
holding frame has one side wall for defining one side of the exposure means-holding frame, and
the drum-holding frame has a side wall for defining one side of the drum-holding frame, which is
positioned on the outer side of one side wall of the exposure means-holding frame, and

a pressing means for pressing the exposure means-holding frame from one side toward
the other side in the axial direction of the photosensitive drum, wherein the pressing means
comprises a pressing member comprising a cylindrical portion and a closing wall disposed on
one side wall of the drum-holding frame so as to move in the axial direction and a compression
coil spring disposed between the pressing member and the one side wall of the exposure means-
holding frame, the pressing member is so disposed as to protrude beyond one side wall of the
drum-holding frame and is limited at a predetermined position from moving in a direction to
separate away from one side wall of the exposure means-holding frame, and, in a state where the
photosensitive drum units are supported at predetermined positions between the stationary side
walls, the pressing member is pushed ~~upon being contacted to~~ in contact with one stationary side
wall and, upon ~~bringing press-contacting part on~~ of the other side of the exposure means-holding
frame into pressed contact with the other stationary side wall, causing the exposure means-
holding frames are frame to be aligned to with each other, at a predetermined positions position
in an axial direction, with the other stationary side wall as a reference.

9-10. (Canceled)

11. (Currently Amended) ~~An image forming apparatus according to claim 10,~~
comprising:

a pair of stationary side walls arranged in an image forming apparatus body; and
a plurality of photosensitive drum units supported between the stationary side walls,
wherein each of the photosensitive drum units comprises:

a drum-holding frame for holding a photosensitive drum,

an exposure means-holding frame for holding an exposure means so as to adjust the
position thereof in the radial direction relative to the peripheral surface of the photosensitive
drum, the exposure means-holding frame being supported on the drum-holding frame so as to
move in an axial direction of the photosensitive drum, relative to the drum-holding frame, and

a pressing means for pressing the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum,

wherein both side portions of the exposure means are supported by the exposure means-holding frame via a radial direction position adjusting means capable of adjusting the positions thereof in the radial direction relative to the peripheral surface of the photosensitive drum, and

wherein each of the radial direction position adjusting means includes

fitting holes formed in the bottom wall portions disposed integrally in the inside of both side portions of the exposure means-holding frame, the fitting holes being such that the ends thereof on the bottom wall side are closed by the closing walls and the other ends thereof are opened,

cylindrical portions formed integrally on both side portions of the exposure means and being internally threaded along the inner peripheral surfaces thereof, the cylindrical portions being inserted in the fitting holes from the other ends thereof so as to slide,

radial direction position adjusting bolts brought into engagement with the cylindrical portions and into contact at the front ends thereof with the closing walls in the bottom wall portions, and

a spring means for urging both side portions of the exposure means toward the bottom wall portions,

wherein the fitting holes are so positioned that the axes thereof extend in parallel with each other and at right angles with the axis of the photosensitive drum.

12. (Currently Amended) An image forming apparatus according to claim [[1]] 3,
wherein the exposure means comprises an LED head.

13. (Canceled)

14. (Currently Amended) A photosensitive drum unit according to claim [[13]] 15,
wherein the pressing means is disposed on one-side of the drum-holding frame so as to press the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum.

15. (Currently Amended) A photosensitive drum unit ~~according to claim 13 or 14,~~
supported between a pair of stationary side walls in an image forming apparatus body, said drum
unit comprising:

a drum-holding frame for holding a photosensitive drum,

an exposure means-holding frame for holding an exposure means, the exposure means-
holding frame being supported on the drum-holding frame so as to move in the axial direction of
the photosensitive drum relative to the drum-holding frame, and

a pressing means capable of pressing the exposure means-holding frame from one side
toward the other side in the axial direction of the photosensitive drum, wherein

the exposure means-holding frame has one side wall for defining one side of the exposure
means-holding frame,

the drum-holding frame has a side wall for defining one side of the drum-holding frame,
which is positioned on the outer side of one side wall of the exposure means-holding frame,

the pressing means comprises a pressing member comprising a cylindrical portion and a
closing wall disposed on one side wall of the drum-holding frame so as to move in the axial
direction and a compression coil spring disposed between the pressing member and the one side
wall of the exposure means-holding frame, and

the pressing member is so disposed as to protrude beyond one side wall of the drum-
holding frame and is limited at a ~~predetermine~~ predetermined position from moving in a
direction to separate away from one side wall of the exposure means-holding frame.

16. (Currently Amended) A photosensitive drum unit ~~according to claim 13,~~ supported
between a pair of stationary side walls in an image forming apparatus body, said drum unit
comprising:

a drum-holding frame for holding a photosensitive drum,

an exposure means-holding frame for holding an exposure means, the exposure means-
holding frame being supported on the drum-holding frame so as to move in the axial direction of
the photosensitive drum relative to the drum-holding frame, and

a pressing means capable of pressing the exposure means-holding frame from one side
toward the other side in the axial direction of the photosensitive drum,

wherein the exposure means-holding frame is supported so as to move in the axial
direction relative to the drum-holding frame by fitting shafts or fitting holes disposed on both

side walls that define both sides of the exposure means-holding frame to the fitting holes or the shafts disposed on both side walls of the drum-holding frame, and wherein axes of the shafts or the fitting holes disposed on both side walls of the exposure means-holding frame and the axes of the fitting holes or the shafts disposed on both side walls of the drum-holding frame, are arranged on a common imaginary axis line in parallel with the axis of the photosensitive drum, which is on a common imaginary axis line on the peripheral surface where an image is focused by the exposure means, of the photosensitive drum.

17-18. (Canceled)

19. (Currently Amended) A photosensitive drum unit ~~according to claim 18~~, supported between a pair of stationary side walls in an image forming apparatus body, said drum unit comprising:

a drum-holding frame for holding a photosensitive drum,

an exposure means-holding frame for holding an exposure means, the exposure means-holding frame being supported on the drum-holding frame so as to move in the axial direction of the photosensitive drum relative to the drum-holding frame, and

a pressing means capable of pressing the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum,

wherein the exposure means is held by the exposure means-holding frame so as to adjust the position thereof in the radial direction relative to the peripheral surface of the photosensitive drum,

wherein both side portions of the exposure means are supported by the exposure means holding frame via a radial direction position adjusting means capable of adjusting the positions thereof in the radial direction relative to the peripheral surface of the photosensitive drum, and

wherein each of the radial direction position adjusting means comprises

fitting holes formed in the bottom wall portions disposed integrally in the inside of both side portions of the exposure means-holding frame, the fitting holes being such that the ends thereof on the bottom wall side are closed by the closing walls and the other ends thereof are opened,

cylindrical portions formed integrally on both side portions of the exposure means and being internally threaded along the inner peripheral surfaces thereof, the cylindrical portions being inserted in the fitting holes from the other ends thereof so as to slide,

radial direction position adjusting bolts brought into engagement with the cylindrical portions and into contact at the front ends thereof with the closing walls in the bottom wall portions, and

a spring means for urging both side portions of the exposure means toward the bottom wall portions, wherein the fitting holes are so positioned that the axes thereof extend in parallel with each other and at right angles with the axis of the photosensitive drum.

20. (Currently Amended) A photosensitive drum unit according to claim [[13]] 15, wherein the exposure means comprises an LED head.

21. (New) A photosensitive drum unit supported between a pair of stationary side walls in an image forming apparatus body, said drum unit comprising:

a drum-holding frame for holding a photosensitive drum,

an exposure means-holding frame for holding an exposure means, the exposure means-holding frame being supported on the drum-holding frame so as to move in the axial direction of the photosensitive drum relative to the drum-holding frame, and

a pressing means capable of pressing the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum, wherein

the pressing means is disposed on one side of the drum-holding frame so as to press the exposure means-holding frame from one side toward the other side in the axial direction of the photosensitive drum,

the exposure means-holding frame has one side wall for defining one side of the exposure means-holding frame, the drum-holding frame has a side wall for defining one side of the drum-holding frame, which is positioned on the outer side of one side wall of the exposure means-holding frame,

the pressing means comprises a pressing member comprising a cylindrical portion and a closing wall disposed on one side wall of the drum-holding frame so as to move in the axial direction and a compression coil spring disposed between the pressing member and the one side wall of the exposure means-holding frame, and

the pressing member is so disposed as to protrude beyond one side wall of the drum-holding frame and is limited at a predetermined position from moving in a direction to separate away from one side wall of the exposure means-holding frame.

22. (New) A photosensitive drum unit according to claim 21, wherein the exposure means comprises an LED head.